

WHAT IS CLAIMED IS:

- 1 1. A micro TPV generator comprising:
2 a combustion chamber configured to generate a significantly even
3 temperature distribution on an outer wall thereof,
4 an emitter engaged around or at least in thermal connection to said
5 chamber, and
6 a photovoltaic cell in proximity to said emitter and configured to
7 generate an electrical current depending on photons incident thereon.
- 1 2. A micro TPV generator as claimed in claim 1 wherein said chamber
2 including a platinum catalyst coating an inner wall thereof.
- 1 3. A micro TPV generator as claimed in claim 2 wherein said outer wall
2 is substantially cylindrical.
- 1 4. A micro TPV generator as claimed in claim 3 wherein said chamber
2 including a backwards facing step.
- 1 5. A micro TPV generator as claimed in claim 4 wherein said emitter has
2 an emission characteristic matched to the bandgap characteristic of said cell.
- 1 6. A micro TPV generator as claimed in claim 5 wherein said emitter
2 formed of Co-/Ni- doped MgO ribbon or tape.
- 1 7. A micro TPV generator as claimed in claim 5 wherein said emitter
2 formed of SiC.
- 1 8. A micro TPV generator as claimed in claim 5 further comprising a
2 filter between said emitter and said cell configured to pass photons above a threshold and
3 reflect photons under said threshold.
- 1 9. A micro TPV generator as claimed in claim 8 wherein said filter
2 comprising a 9 layers of Si-SiO₂ bonded between a glass slide and said cell.
- 1 10. A micro TPV generator as claimed in claim 9 wherein said cell formed
2 from a GaSb based semiconductor.

1 11. A micro TPV generator as claimed in claim 1 wherein said chamber
2 having an internal diameter less than 1 mm for hydrogen fuel at compressed pressure.

1 12. A micro TPV generator as claimed in claim 1 wherein said chamber
2 having an internal diameter less than 3 mm for propane at atmospheric pressure.